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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,450	12/26/2000	Reinhard Buendgen	DE9-1999-0087	4189
877	7590	12/15/2004	EXAMINER	
IBM CORPORATION, T.J. WATSON RESEARCH CENTER P.O. BOX 218 YORKTOWN HEIGHTS, NY 10598			ALI, SYED J	
			ART UNIT	PAPER NUMBER
			2127	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/748,450	Applicant(s) BUENDGEN, REINHARD	
	Examiner Syed J Ali	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed September 23, 2004. Claims 1-16 are presented for examination.
2. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Objections

3. **Claim 11 is objected to because of the following informalities:**

- a. In line 5 of claim 11, "east" should read "least".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

6. The "distributed computer system" of claim 9 is software per se. The system is not embodied on any sort of physical medium and fails to recite any hardware as part of the system.

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The components of the system are embodied wholly within software, and are not tangibly embodied.

Claim Rejections - 35 USC § 102

7. **Claims 1-2, 6-11, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Blleloch et al. (USPN 5,768,594) (hereinafter Blleloch).**

8. As per claim 1, Blleloch teaches the invention as claimed, including a method for running in parallel at least one parallel method associated with a sequential caller program (col. 2 lines 19-23), said method comprising:

issuing a dedicated parallelization call to a parallel program manager (col. 2 lines 15-19; col. 2 lines 28-37) comprising all control information needed to allow for running said parallel method as a parallel program (col. 2 lines 23-27), wherein programming of said parallel program manager and said parallel program are independent of the programming of said sequential caller program in at least one of the following aspects: programming language, compilation, linkage, and hardware platforms (col. 2 lines 15-19; col. 3 lines 52-55).

9. As per claim 2, Blleloch teaches the invention as claimed, including the method according to claim 1 further comprising:

serializing input arguments for a subprogram means (col. 4 lines 47-51); and

running said parallel method in parallel on a different machine yielding a result (col. 4 lines 59-65);

returning said result to the caller program (col. 4 line 66 - col. 5 line 1); and
deserializing the result (col. 5 lines 1-7).

10. As per claim 6, Blelloch teaches the invention as claimed, including the method according to claim 1 in which said dedicated parallelization call is done more than once during the run of said caller program means (col. 3 lines 55-63).

11. As per claim 7, Blelloch teaches the invention as claimed, including the method according to claim 6 in which parallelization parameters are selectable for each dedicated parallelization call (col. 2 lines 28-37; col. 3 lines 55-63).

12. As per claim 8, Blelloch teaches the invention as claimed, including the method according to claim 2 further comprising the step of using a program library which comprises program means for performing the steps of serializing input arguments, running said parallel method in parallel, returning said result and deserializing the result (col. 2 lines 14-37).

13. As per claim 9, Blelloch teaches the invention as claimed, including a distributed computer system arranged for implementing the method of claim 1 (col. 2 lines 47-56).

14. As per claim 10, Blelloch teaches the invention as claimed, including a computer program comprising code portions adapted for implementing the method of claim 1 (col. 2 lines 14-37).

15. As per claim 11, Blleloch teaches the invention as claimed, including a computer program product stored on a computer usable medium comprising a computer readable program for causing a computer to perform the method of claim 1 (col. 2 lines 14-56).

16. As per claim 16, Blleloch teaches the invention as claimed, including a parallel program managing tool comprising program means for returning results from parallel executable subprogram means (col. 2 lines 44-46).

Claim Rejections - 35 USC § 103

17. **Claims 3-5 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blleloch in view of Goldberg et al. (USPN 6,571,232) (hereinafter Goldberg).**

18. As per claim 3, Goldberg teaches the invention as claimed, including the method according to claim 1 further comprising the step of generating said parallel method with a script program means which in turn is arranged to invoke a stream editor in order to fill a template means with the code or the name of the method to be computed in parallel (col. 6 lines 41-63).

19. It would have been obvious to one of ordinary skill in the art to combine Blleloch and Goldberg since using a script to compile or translate programs into a form suitable for a particular element can be used to preprocess actions, thus speeding up considerably the time it takes to execute actions. Rather than waiting until the program is loaded onto a processing

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element and then translating the code, the preprocessor generates the appropriate type of code before sending the application out.

20. As per claim 4, Goldberg teaches the invention as claimed, including the method according to claim 3, further comprising the step of automatically generating an instantiation of said template means (col. 3 lines 20-23).

21. As per claim 5, Goldberg teaches the invention as claimed, including the method according to claim 4 in which a script is used for generating parallel subprograms (col. 6 lines 41-63).

22. As per claim 12, Blleloch teaches the invention as claimed, including a program library comprising at least one of:

an implementation of an application interface for procedural parallel operating environment [POE] calls to a parallel program manager (col. 2 lines 15-19; col. 2 lines 28-37), wherein programming of said application interface is independent of the programming of said parallel program manager in at least one of the following aspects: programming language, compilation, linkage, and hardware platforms (col. 2 lines 15-19; col. 3 lines 52-55).

23. Goldberg teaches the invention as claimed, including template means for parallel subprogram means and script means for generating parallel subprograms (col. 6 lines 41-63).

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24. As per claim 13, Blleloch teaches the invention as claimed, including the library according to claim 12 which provides prerequisites to generate user library functions that make parallelism transparent to a caller of said user library functions (col. 2 lines 23-27).

25. As per claim 14, Blleloch teaches the invention as claimed, including a user library generated by means of the library according to claim 12 (col. 2 lines 14-37).

26. As per claim 15, Blleloch teaches the invention as claimed, including the library according to claim 12 which said library is a dynamic link library (col. 2 lines 14-37).

Response to Arguments

27. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new grounds of rejection.

Conclusion

28. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed J Ali whose telephone number is (571) 272-3769. The examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai T An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Syed Ali
November 29, 2004



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